

# NOTES

- FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES, SEE DWG. E-1. FOR INSTALLATION DETAILS, SEE DWGS. E-2 AND E-4. FOR WIRING DIAGRAMS, SEE DWGS. E-3 AND E-4.
- DISCONNECTION OF EXISTING SPEAKER CIRCUIT AND CONNECTION OF INSTALLED SPEAKER CIRCUIT AT THE TSC AND/OR THE EXISTING SPEAKER SHALL BE MADE AFTER INSTALLED SPEAKER WIRING IS TESTED AND OPERATIONAL. THIS WORK SHALL BE DONE IN THE PRESENCE OF THE ENGINEER.
- NOT USED.
- CONTRACTOR SHALL REMOVE EXISTING SPEAKERS ONLY AFTER INSTALLED DEVICES ARE OPERATIONAL.
- FOR REMOVAL AND PATCHING PLAN DETAILS (P-1, P-2, P-3 & P-4), SEE DWG A-1.
- ALL REMOVED SPEAKERS SHALL BE RETURNED TO THE ENGINEER.
- ALIGN CENTER LINES OF SPEAKERS (ON WHICH WORK IS TO BE DONE IN THE CORRIDORS) TO THE CENTER LINE OF THE CORRIDOR. IN CASE OF CONFLICT WITH EXISTING CEILING LIGHTING AND GRILLS, FINAL LOCATION OF SPEAKERS SHALL BE ADJUSTED WITH THE APPROVAL OF THE ENGINEER.
- SINCE FIRE ALARM CIRCUIT LENGTH IS CRITICAL, ROUTING AND INSTALLATION OF ALL FIRE ALARM CIRCUITS SHALL BE AS SHOWN ON DRAWING.
- COORDINATE REMOVAL OF ALL SPEAKERS WITH ENGINEER. DISCONNECT AND ABANDON EXISTING SPEAKER CIRCUITS IN CEILING. TAPE ENDS OF ABANDONED CONDUCTORS AND TAG AS ABANDONED. THIS WORK SHALL BE DONE IN THE PRESENCE OF THE ENGINEER.
- REPLACE EXISTING SPEAKER WITH THE SHOWN WATTAGE RATED SPEAKER, AND REWIRE AS SHOWN. EXISTING BACKBOX CAN BE UTILIZED IF IT IS SIMILAR TO THE TYPICAL SPEAKER BOX. SEE INSTALLATION DETAIL 'A'.

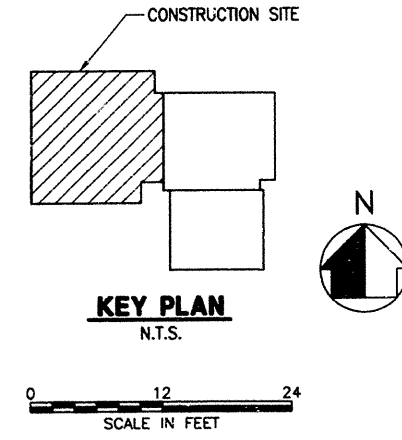
## SPEAKER CIRCUIT/LOADING TABLE

SPEAKER TAP/DB SETTING	Watts	1/8	1/4	1/2	1	2	4	TOTAL POWER (Watts)	CIRCUIT LENGTH (ft.)
SPK-C	75	78	81	84	87	90		10.125	1205
SPK-D	3	8	9	1				7.875	897
SPK-E	1	0	8	1				5.125	597
SPK-F	2	1	8	1				5.500	540
SPK-G	6	4	16	1				10.750	1310
SPK-H	5	4	16	1				10.625	1431
GRAND TOTAL								50.000	5980

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS CONSTITUTING A PART OF CONTRACT NO. WTC-861.573 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.

DATE 2/1/00 *[Signature]* CONTRACT ENGINEER/ARCH.

DATE 1/18/00 *[Signature]* ENGINEERING PROGRAM MGR.



THE PORT AUTHORITY OF NY & NJ

ENGINEERING PROGRAM MANAGER  
*[Signature]*  
 CHIEF ELECTRICAL ENGINEER

No. Date Revision Approved

ENGINEERING DEPARTMENT

WORLD TRADE CENTER

## ELECTRICAL

Title  
 FIRE ALARM SYSTEM  
 DEVICE UPGRADE  
 PHASE III  
 5 WTC 3rd, 4th, 5th & 6th FLOORS

4th FLOOR  
 SPEAKER LAYOUT  
 INSTALLATION AND  
 REMOVAL  
 WEST PART PLAN

This drawing subject to conditions in Contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

FELDSTEIN APOSTLE A.S.  
 Designed by Drawn by Checked by

NOVEMBER 26, 1999  
 Date

WTC-861.573 E-04-2W  
 Contract Number Drawing Number